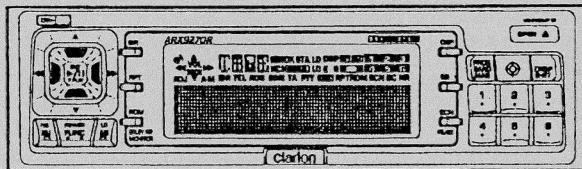


# Service Manual



RDS-EON/FM-MPX/MW/LW  
Radio Cassette Combination  
with DSP/EQ/CD Changer control

Model **ARX9270R**  
( PE-9902E-B )

## ■ ORIGINAL SERVICE MANUAL

This additional service manual is designed to be used together with Model ARX9170R

Original model	Manual No.
ARX9170R	298-5213-00 353

## ■ SPECIFICATIONS

### Radio section

Receive frequencies: LW 153kHz to 279kHz  
(1 kHz steps)  
MW 531kHz to 1,602kHz  
(9 kHz steps)  
FM 87.5MHz to 108.0MHz  
(0.05 MHz steps)

### Tape Deck section

Playback system: Auto reversing, 4-track, 2-channel  
stereo cassette tape playback (Monaural also capable)

Tape speed: 4.76cm/sec.(1-7/8ips)

### General Section

Load impedance: 10kΩ × 4(Line out)  
10kΩ × 2(Non fader out)

Power supply voltage: DC14.0V(10.8 to 15.6V allowable),  
Negative ground

Current consumption: Less than 3A

Dimensions(mm): Width 178×Height 50×Depth 152

Weight: 1.6kg

\* For improvement purposes, specifications and design are subject to change without prior notice.

\* Dolby noise reduction is manufactured under license from Dolby Laboratories Licensing Corporation.

\* "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

## ■ COMPONENTS

Main unit	1
Remote controller	RCB-058-300
Battery(CR2058BC)	1
Sticker	291-0062-00
Mounting bracket(univ.)	300-9035-01
D.C.P. case	335-4848-03
Extension lead	854-3843-00
Parts bag	1
Hook plate	331-8216-01
Lead holder	335-0833-01
Spacer	345-3653-01
Screw	716-0726-01

## ■ To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

### 1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

### 3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the igni-

tion key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 5. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

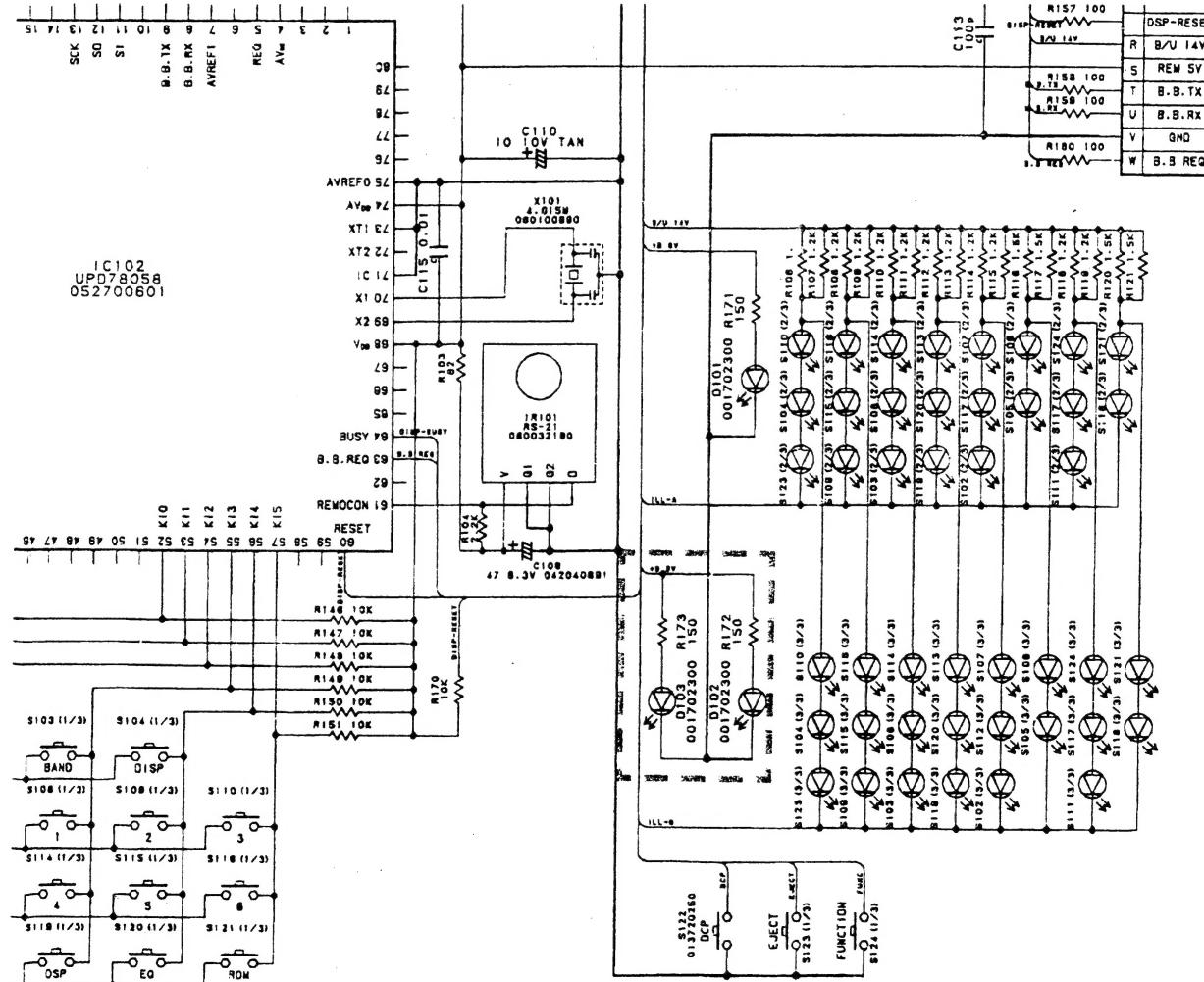
### 6. Cautions in handling flexible PWB

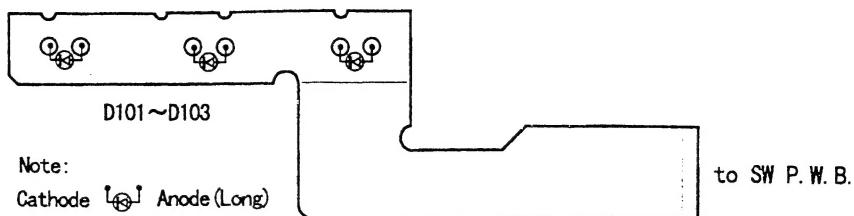
Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

### 7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

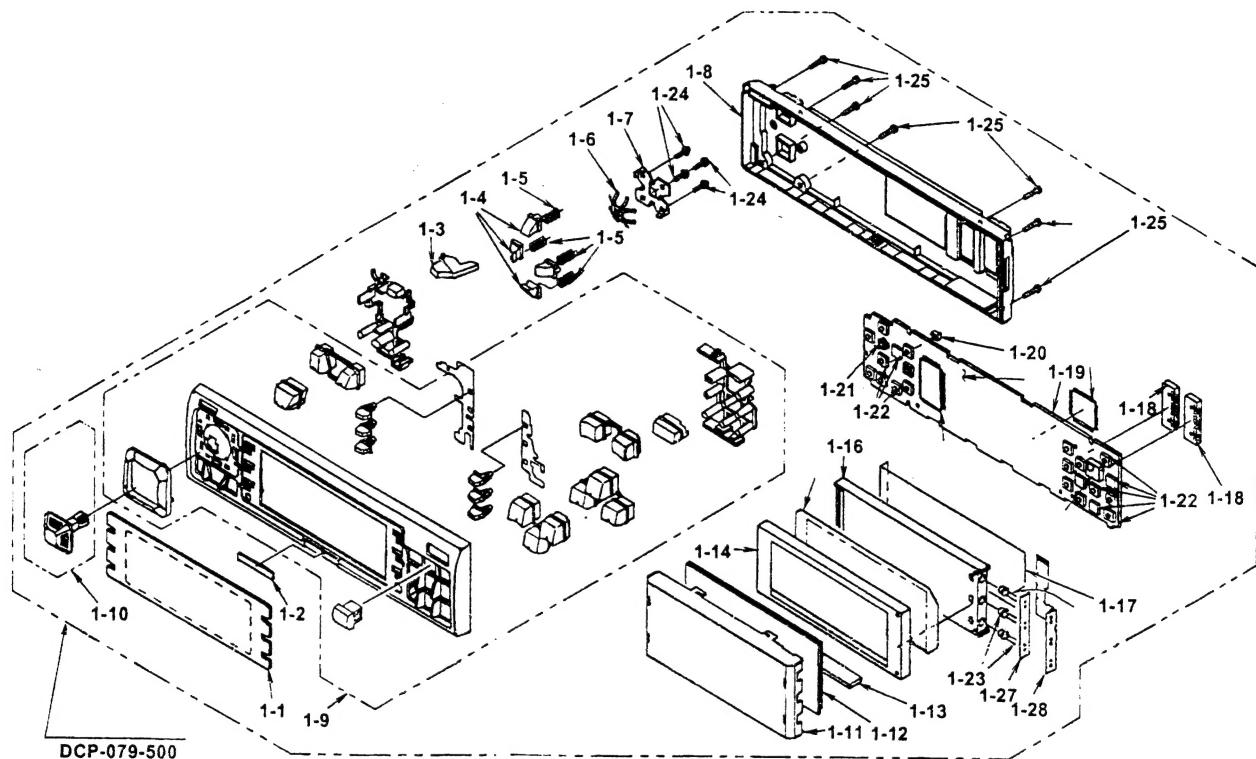
## ■ DIFFERENCE FROM ORIGINAL MODEL

1. LED ILLUMINATION
2. Some of the escutcheon parts.





## ■ EXPLODED VIEW / PARTS LIST



NO.	PART NO.	DESCRIPTION	Q'TY
1	DCP-079-600	D.C.P.	1
1-1	373-0774-07	DIAL COVER	1
1-2	378-0134-00	BADGE	1
1-3	382-7665-00	BUTTON	1
1-4	335-4846-00	PUSH PLATE	1
1-5	750-3172-00	SPRING	4
1-6	750-3149-00	SPRING	1
1-7	331-0587-20	SPRING HOLDER	1
1-8	335-4839-00	REAR COVER	1
1-9	940-7704-01	ESCUOTCHEON	1
1-10	947-0835-00	KNOB(P.PLAY)	1
1-11	331-1821-00	LCD COVER	1
1-12	379-1025-71	INDICATOR	1
1-13	345-5240-00	RUER CONNECTOR	1
1-14	347-5240-00	FILM FRAME	1
1-15	347-5238-00	FILM	1
1-16	335-5092-00	ILLUMI PLATE	1

NO.	PART NO.	DESCRIPTION	Q'TY
1-17	347-5239-00	REFLECTOR	1
1-18	076-0456-30	PLUG(D.C.P. 10P)	2
1-19	039-0656-00	SWITCH P.W.B.	1
1-20	013-7202-50	SWITCH	1
1-21	013-6501-52	SWITCH	1
1-22	013-6501-51	SWITCH	22
1-23	001-7023-01	LED	3
1-24	716-0778-00	WAVE SCREW	4
1-25	716-1721-00	P-TIGHT SCREW(M2×8)	6
1-26	716-1726-00	WAVE SCREW(M1.7×6)	1
1-27	347-5241-00	LED HOLDER	1
1-28	039-0643-00	FPC	1
1-29	335-5099-00	ILLUMI PLATE	1
48	940-7708-01	INNER ESCUTCHEON	1
51	320-0442-23	DUSTPROOF-COVER	1
118	074-1128-00	OUTLET SOCKET	1
136	286-9772-00	SET PLATE	1

## ■ EXPLANATION OF ICs

■  **$\mu$ PD78058GC-025-389 052-3318-00 System Controller  
 $\mu$ PD78058GC-044-389 052-3316-01 (Master Microcomputer)**

\* 052-3318-00 and 052-3316-01 are not compatible with each other.

### Outward Form

80-pin plastic QFP

### Terminal Description (052-3318-00)

No.	Symbol	I/O	Function
1 3	GND	-	GND terminal.
4 6	AVSS	-	GND terminal for A/D.
7	AVref 1	-	A/D reference voltage terminal (+ 5V).
8 9 10	SI 2 SO 2 SCK 2	-	Connected to GND.
11 12	DISP SI DISP SO	I O	Terminal to input and output data of serial bus line.
13 14 15	DISP SCK DISP RESET DISP BUSY	O O I	Terminal to input and output signal to DCP microcomputer.
16 17 18	C-BUS SI C-BUS SO C-BUS SCK	I O O	C-BUS line SI/SO/SCK terminal on master side.
19 26 27 29	AD 0 AD7 A 8 A 10	I/O O	Address/data bus for SRAM interface.
30	NC	-	Not in use.
31	SRQ	I	C-BUS line SRQ terminal on master side.
32	ACC CONT	O	ACC controlling terminal of serial bus line.
33	VSS	-	GND terminal.
34	ILLUMI 1	O	"H" is outputted in the case of AMBER.
35	ILLUMI 2	O	"H" is outputted in the case of GREEN.
36	ACC REM	O	Terminal to control ON/OFF of 5V system power supply (ACC 5V).
37	REM +B	O	Terminal to control ON/OFF of +B (audio system) power supply.
38	MUTE	O	Terminal to output SYSTEM MUTE signal.
39	BLINK LED	O	BLINKING LED terminal.
40	RD	O	Strobing terminal for SRAM lead.
41	WR	O	Strobing terminal for SRAM light.
42	CE	O	Terminal to enable SRAM chip.
43	ASTB	O	Latch terminal for SRAM light.
44 45	GND	-	GND terminal.
46 47 48	EVOL CLK EVOL DATA EVOL CE	O	Terminal to transfer serial data to electric volume.
49	PHONE INT	I	Terminal to input interruption signal from telephone.
50 53	GND	-	GND terminal.

Note: Only new microcomputers are described here.

Pin No.	Symbol	I/O	Function															
54 55	MOTOR - MOTOR +	O	Terminal to control direction of motor revolution of flap.  <table border="1" style="margin-left: 20px;"> <tr> <td>MOTOR +</td> <td>MOTOR -</td> <td>Direction of flap movement</td> </tr> <tr> <td>H</td> <td>H</td> <td>Brake</td> </tr> <tr> <td>H</td> <td>L</td> <td>In the direction of OPEN</td> </tr> <tr> <td>L</td> <td>H</td> <td>In the direction of CLOSE</td> </tr> <tr> <td>L</td> <td>L</td> <td>-</td> </tr> </table>	MOTOR +	MOTOR -	Direction of flap movement	H	H	Brake	H	L	In the direction of OPEN	L	H	In the direction of CLOSE	L	L	-
MOTOR +	MOTOR -	Direction of flap movement																
H	H	Brake																
H	L	In the direction of OPEN																
L	H	In the direction of CLOSE																
L	L	-																
56	REM MOTOR	O	Flap block battery ON/OFF control terminal. Flap power ON: H															
57	DR SENC	I	Input terminal to detect opening and closing of cassette door. Pack in : "H" No pack : "L"															
58	OPEN SENC	I	Terminal to detect opening of flap.															
59	CLOSE SENC	I	Terminal to detect closing of flap.															
60	RESET	I	Terminal to input reset signal.															
61	DISP REQ	I	Terminal to input REQ signal from DCP microcomputer.															
62	B/U	I	Input terminal for BACK UP detection.															
63	ACC IN	I	Input terminal for ACC ON/OFF detection. "H" at ACC ON. "L" at ACC OFF.															
64	EJECT	I	Input terminal for EJECT key detection. The terminal turns "H" when key is pressed.															
65	ILLUMI DET	I	Input terminal for ILLUMI detection.															
66	DCP IN	I	Input terminal for DCP detection. The terminal turns "L" when DCP is detected.															
67	FUNCTION	I	Input terminal for power (function) SW detection. The terminal turns "L" when FUNCTION SW is ON.															
68	V <sub>DD</sub>	-	Power supply voltage terminal (+ 5V).															
69 70	X 2 X 1	-	System clock terminal.															
71	V <sub>SS</sub>	-	GND terminal.															
72	NC	-	Not in use.															
73	SELF CHECK	I	Terminal for SELF CHECK.															
74	AV <sub>DD</sub>	-	A/D power supply voltage terminal (+ 5V).															
75	AVref 0	-	A/D reference voltage terminal (0V).															
76 80	GND	-	GND terminal.															

### Differences (0952-3316-01)

Pin No.	Symbol	I/O	Function
50	BEEP	O	BUZZER output terminal which sends signal to turns the buzzer on.
51 58	NC	-	Not in use.
59	2105/2106	I	Terminal for input of PE-2105/PE-2106 selector signal. "H" in PE-2105 mode.
76	TEMP	O	The terminal judges high temperature when input voltage drops below 2.46V.

## ■ μPD78014GC-641-AB8 052-1301-10 Tuner Controller

### Outward Form

64-pin plastic QFP

### Terminal Description

No.	Symbol	I/O	Function
1	SD UP	O	Output when measuring a PLL setting IF count.
2	LPF CONT	O	PLL low-pass filter control terminal.
3	RDS MUTE	O	"H" is output for 1 second both at power (POWER & ACC)-on and AM to FM band switching.
4	OUT 1	O	"H"/"L" is simply output by receiving an arbitrary command from the master.
5	OUT 4	O	"H"/"L" is simply output by receiving an arbitrary command from the master.
8	NC	-	Not in use.
9	GND	-	GND terminal.
10	SRAM AD 0	I/O	SRAM control. Address & data line. Port commonly used for the lower 8-bit address and 8-bit data.
17	SRAM AD 7	I/O	SRAM control. Address line. Upper 3-bit address output only port.
18	SRAM A 8	O	SRAM control. Address line. Upper 3-bit address output only port.
20	SRAM A 10	O	SRAM control chip enable. "L" output at any time while the power (POWER & ACC) is turned on.
21	NC	-	Not in use.
22	SRAM CE	O	SRAM control chip enable. "L" output at any time while the power (POWER & ACC) is turned on.
23	S CW	I	Initial setting CW detection enable ("H")/disable ("L").
24	GND	-	GND terminal.
25	S RDS IC	I	Initial setting RSD-IC selection. PHILIPS ("H")/SANYO ("L"). Disabled when RDS ID signal is at "H" and enabled at "L".
26	S SD UP	I	Initial setting SD UP enable ("L")/disable ("H").
27	SRQ	O	C-BUS communication SRQ output.
28	NC	-	Not in use.
29	REM	O	Remote signal output. "L" output at any time while the power (POWER & ACC) is turned on.
30	R MUTE	O	RADIO MUTE output. MUTE ON at "L". Turn on when changing the reception frequency.
31	SRAM RD	O	SRAM control. Data read signal. "L" output when executing a data read instruction from the SRAM.
32	SRAM WR	O	SRAM control. Data write signal. "L" output when executing a data write instruction to the SRAM.
33	AM SD	I	AM band. With-station detection signal input.
34	SRAM ASTB	O	SRAM control timing signal. Always output by effecting the memory expansion mode.
35	RESET	I	Microcomputer reset signal.

## ■ ADJUSTMENT:

### ● FM SECTION

Item	Procedure
S-meter	1. Connect the digital volt-meter to TP101. 2. Input the 98.1MHz/30dB(30%,400Hz)signal and adjust the level to $2.4V \pm 0.1V$ by VR101.
Stop sensitivity	1. Input the 98.1MHz/28dB(30%,400Hz)signal. 2. Connect the GND to TP103. 3. Adjust VR102 so that the voltage of TP102 is high.(or seek up tuning stops)

### ● TAPE SECTION

Item	Procedure
Dolby level	1. Insert a Dolby level test tape(400Hz-200nWb/m), connect the milli-volt-meter to TP-L,TP-R and GND. 2. Adjust VR201 and VR202 to obtain an output of $388mV \pm 1.5/-0.5dB$ at FWD and REV direction. (Dolby switch:OFF)

## ■ PARTS LIST:

Note) Several different parts listed in the column are alternative parts. One of those parts is used in the set.

### ○ SWITCH PWB

REF NO.	PART NO.	DESCRIPTION	QTY
C101,103	042-0397-00	CHIP-C 16V 1μF TAN	2
C109	042-0406-01	CHIP-C 6.3V 47μF TAN	1
C110	042-0416-02	CHIP-C 10V 10μF TAN	1
IC101	051-6010-00	IC SED1526F0A	1
IC102	052-7006-01	IC μPD78058GC-038-3B9	1
IR101	060-0321-00	IR RECEIVER	1

REF NO.	PART NO.	DESCRIPTION	QTY
X101	060-1009-00	CERA-RESONATOR#4.195MHz	1
C112,113	176-1011-00	CHIP-C 100pF	2
C111	176-2211-00	CHIP-C 220pF	1
C114,115	178-1032-78	CHIP-C 0.01μF	2
C104-108	178-1042-78	CHIP-C 0.1μF	5

### ○ MAIN PWB

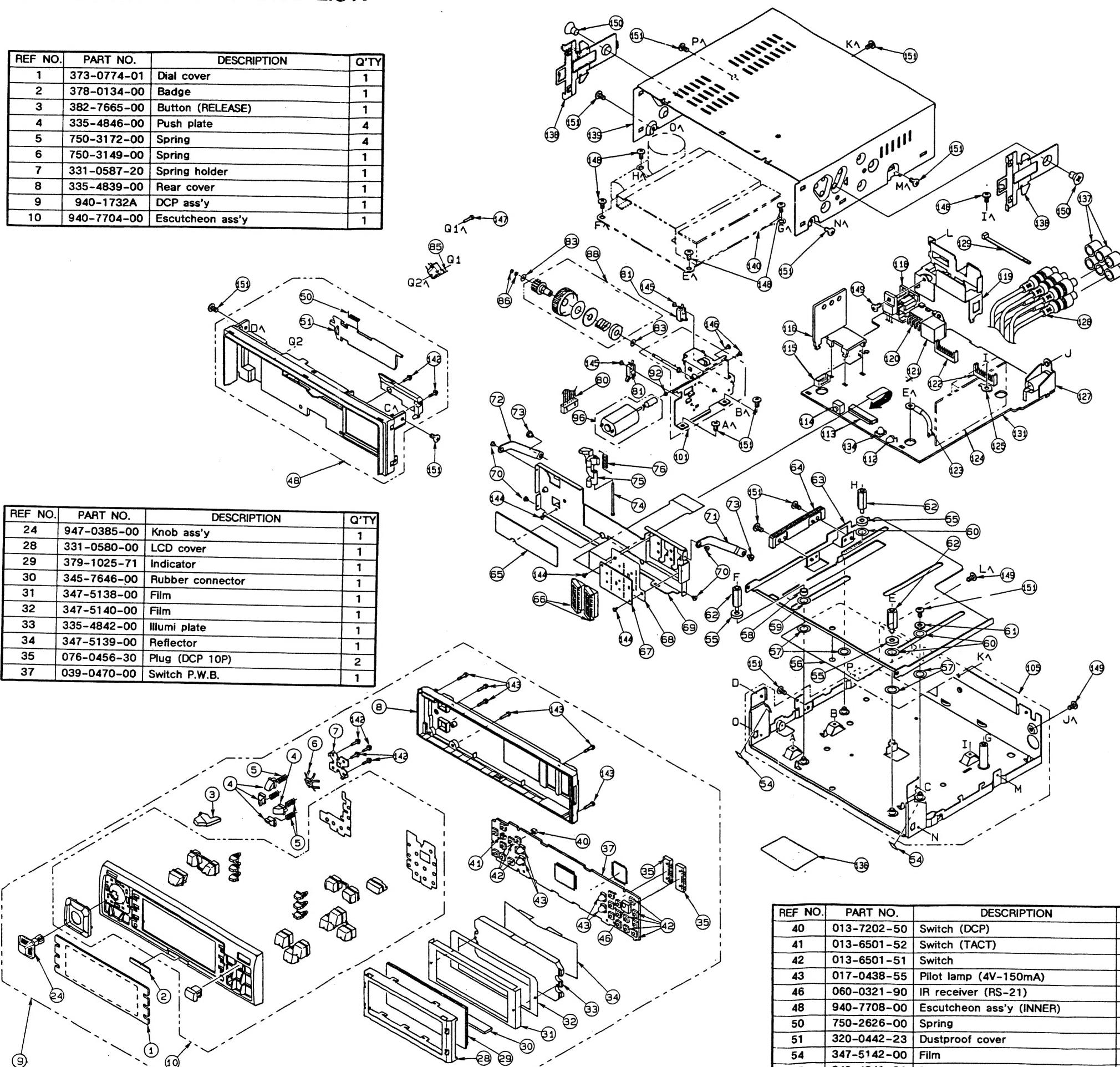
REF NO.	PART NO.	DESCRIPTION	QTY
D106,304,320	001-0330-00	DIODE 1SS119	3
D101	001-0366-00	DIODE LTZMR15	1
D301	001-0377-37	DIODE MA4068L	1
D103,201	001-0377-47	DIODE MA4091M	2
D319	001-0423-22	DIODE MA4075	1
D305,307,315	001-0466-00	DIODE S5688B	3
D104-108,202,306	001-0516-00	DIODE MA111	11
	312-314,317	327,330,333,335	
D102	001-0540-00	DIODE HVM187WK	1
D318	001-0659-00	LED SLP-181B-51	1
L102	010-2003-04	COIL#AM	1
L101	010-2230-00	COIL#0.15μH	1
L103	010-2230-14	COIL#2.2μH	1
L104,105,201	010-2230-26	COIL#22μH	3
L106	010-2230-38	COIL#220μH	1
VR102,201,202	012-5123-06	VARIABLE-R#10K	3
VR101	012-5123-15	VARIABLE-R#470K	1
CCT101	050-0122-50	COMPONENT CIRCUIT#10kΩ	1
IC304	051-0160-56	IC HD74LS07FPD	1
IC203,204	051-0350-55	IC NJM4558M	2
IC306	051-0869-05	IC MB3771PF(-G)	1
IC305	051-1014-05	IC TA7291F	1
IC106,303	051-1046-46	IC LC3517BML-12	2
IC105,302	051-1051-05	IC TC74HC573AF	2
IC103	051-1819-00	IC SAA6579T	1
IC307	051-3201-00	IC AN77L06	1
IC202	051-5004-00	IC CXA1946Q	1
IC201	051-5200-90	IC CXA1332M	1
IC101	051-6201-00	IC L727146M	1
IC104	052-1301-10	IC μPD78014GC-641-AB8	1
IC301	052-3318-01	IC μPD78058GC-046-3B9	1
SUP101	060-0122-10	SURGE PROTECTOR#DSP-201	1
X301	060-0266-90	CERA-RESONATOR#4.19MHz	1
X103	060-0320-50	CERA-RESONATOR#8.38MHz	1
X101	061-1066-00	CRYSTAL#7.2MHz	1
X102	061-3013-00	CRYSTAL#OSC#4.33MHz	1
Q110,111,308	100-1162-00	TR 2SA1162	3
Q306	100-1298-00	TR 2SA1298	1
Q312	101-1237-00	TR 2SB1237	1
Q313	101-1243-00	TR 2SB1243	1
Q302,304,305,307	102-2712-00	TR 2SC2712	5
	317	323,346	
Q106,107	102-2712-51	TR 2SC2712G,L	2
Q104,201,202	103-1306-00	TR 2SD1306	9
Q203,315,323	103-1802-60	TR 2SD1802FA-RSTU	3
Q109	108-0241-50	FET 2SK241	1
Q105,320	125-0002-06	TR RN2406	2
Q101,102,103,108	125-2004-03	TR RN1403	8
112,301,316,324		244,247,250,267	
Q303,318,319	125-2004-06	TR RN1406	3
R342	032-0108-00	FUSE-R 1/4W 1.8Ω	1
R355	114-1001-11	FILM-R 1W 10Ω	1

REF NO.	PART NO.	DESCRIPTION	QTY
C321	172-1041-11	POLY-C 0.1fF	1
C307	172-4731-11	POLY-C 0.047μF	1
C121,347	172-6831-11	POLY-C 0.068μF	2
C320,344	173-1021-11	POLY-C 1000pF	2
C202,203,229,230	173-2221-11	POLY-C 2200pF	4
C115	178-1032-78	CHIP-C 0.01μF	10
C104-108	178-1042-78	CHIP-C 0.1μF	5
C127	176-1501-00	CHIP-C 15pF	1
C128	176-1801-00	CHIP-C 18pF	1
C139,146,148,150	176-2211-00	CHIP-C 220pF	14
279,326,328,334			
336,337,340-343			
C130	176-3311-00	CHIP-C 330pF	1
C134	176-4701-00	CHIP-C 47pF	1
C110	176-4711-00	CHIP-C 470pF	1
C132,277,278	176-5611-00	CHIP-C 560pF	3
C133	176-8201-00	CHIP-C 82pF	1
C304,313,314,329	178-1022-78	CHIP-C 1000pF	4
C135,136,142,152	178-1042-78	CHIP-C 0.1μF	

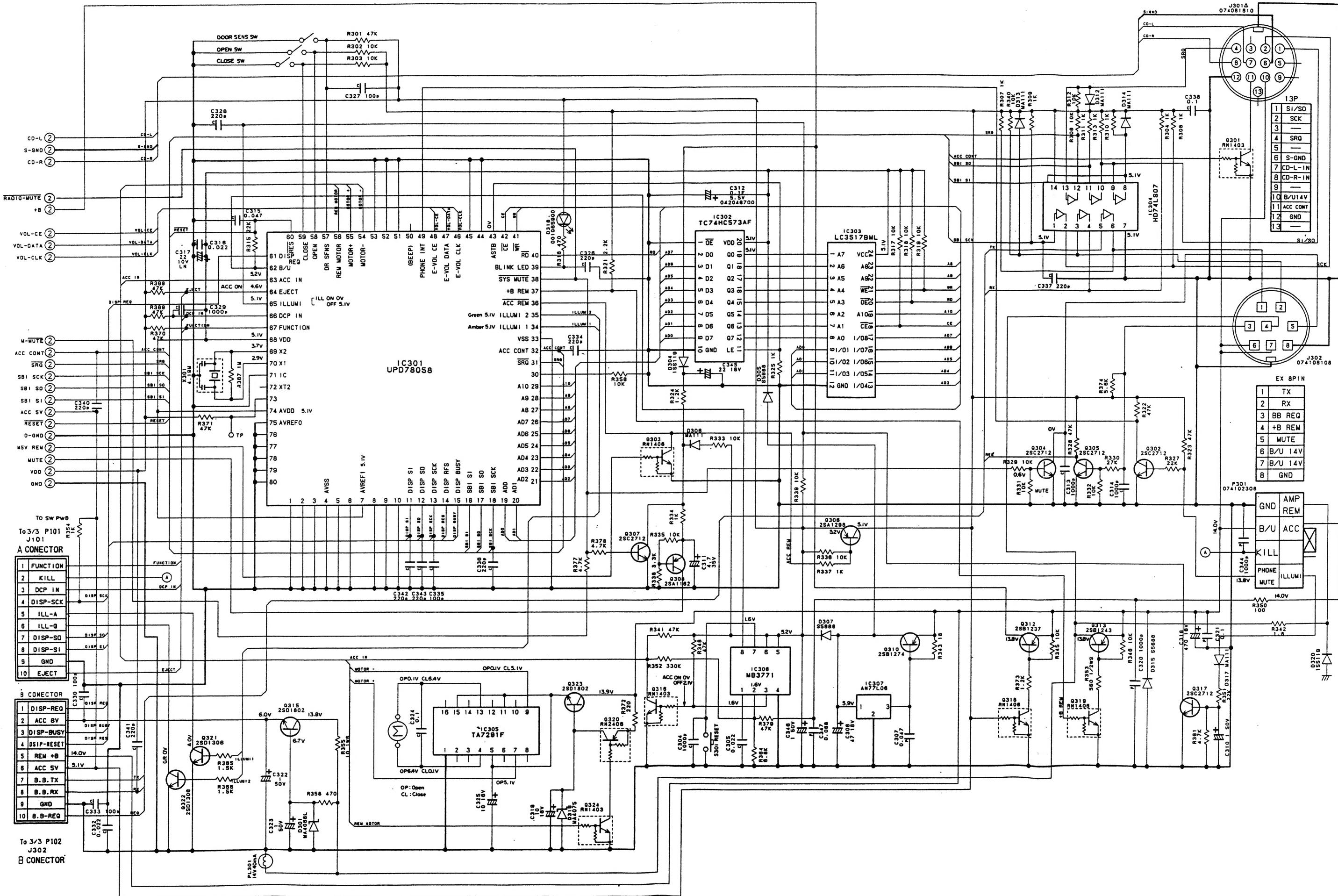
## ■ EXPLODED VIEW • PARTS LIST:

REF NO.	PART NO.	DESCRIPTION	Q'TY
1	373-0774-01	Dial cover	1
2	378-0134-00	Badge	1
3	382-7665-00	Button (RELEASE)	1
4	335-4846-00	Push plate	4
5	750-3172-00	Spring	4
6	750-3149-00	Spring	1
7	331-0587-20	Spring holder	1
8	335-4839-00	Rear cover	1
9	940-1732A	DCP ass'y	1
10	940-7704-00	Escutcheon ass'y	1

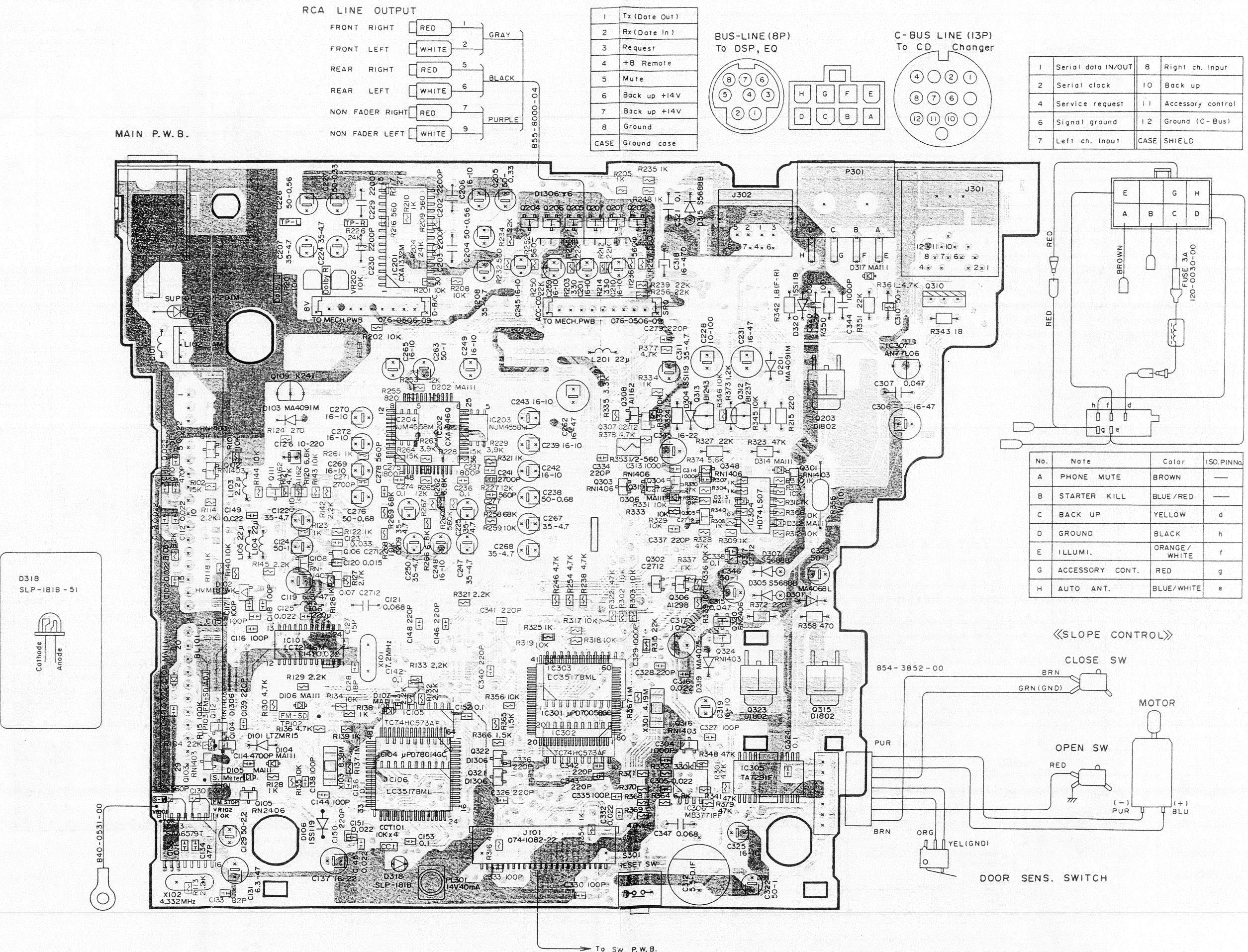
REF NO.	PART NO.	DESCRIPTION	Q'TY
24	947-0385-00	Knob ass'y	1
28	331-0580-00	LCD cover	1
29	379-1025-71	Indicator	1
30	345-7646-00	Rubber connector	1
31	347-5138-00	Film	1
32	347-5140-00	Film	1
33	335-4842-00	Illumi plate	1
34	347-5139-00	Reflector	1
35	076-0456-30	Plug (DCP 10P)	2
37	039-0470-00	Switch P.W.B.	1



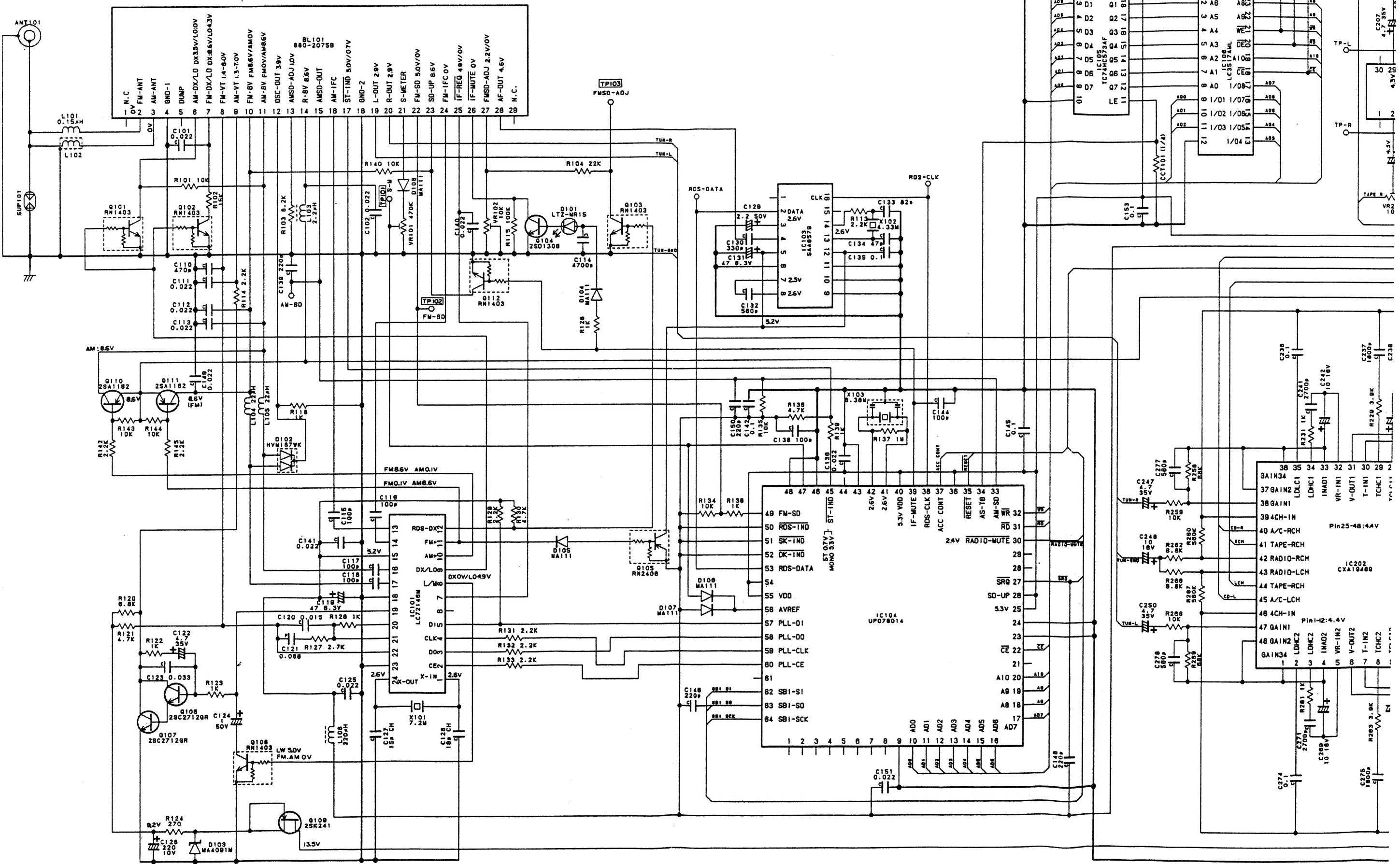
## ■ CIRCUIT DIAGRAM (1/3): MAIN PWB

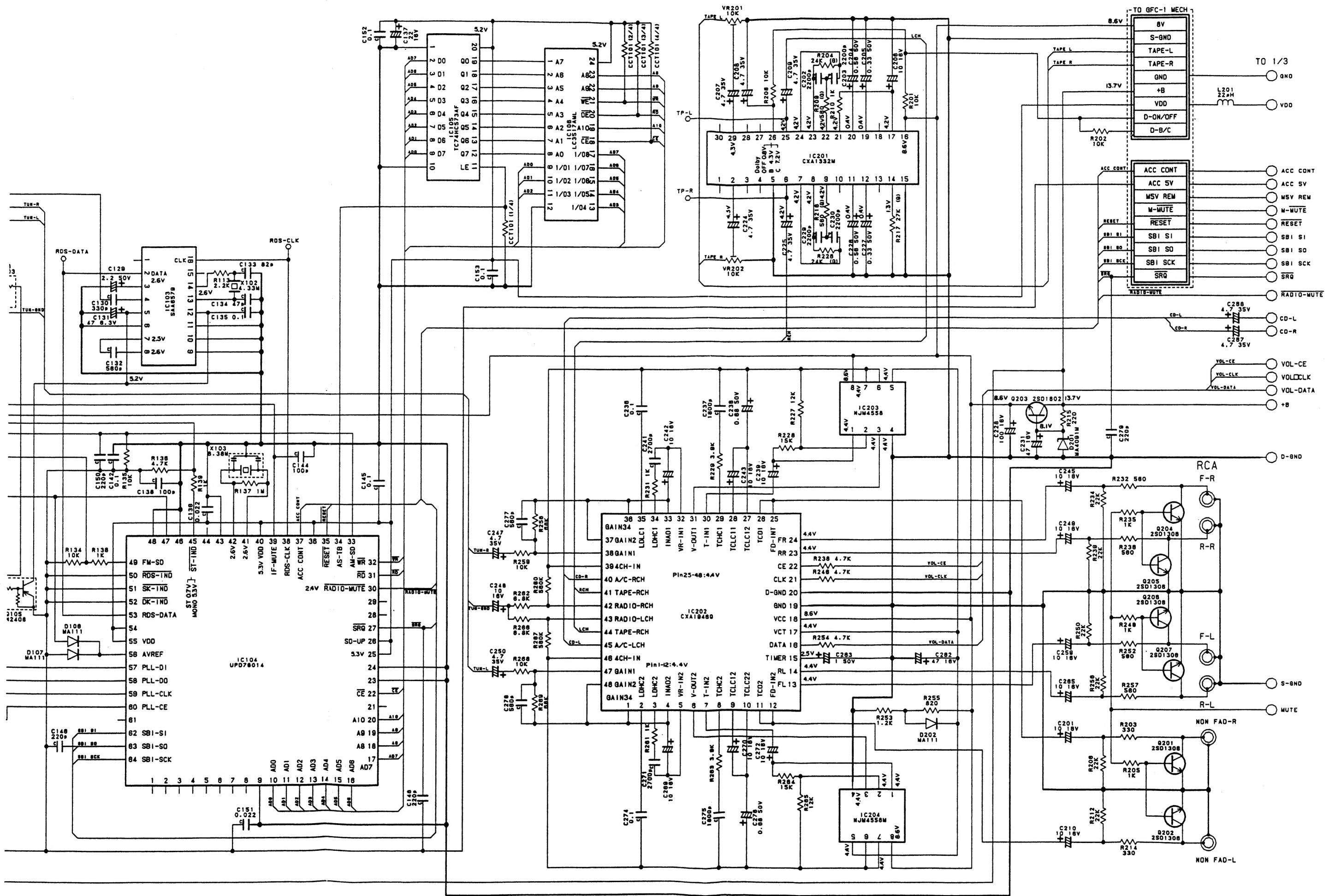


## ■ PRINTED WIRING BOARD: MAIN PWB

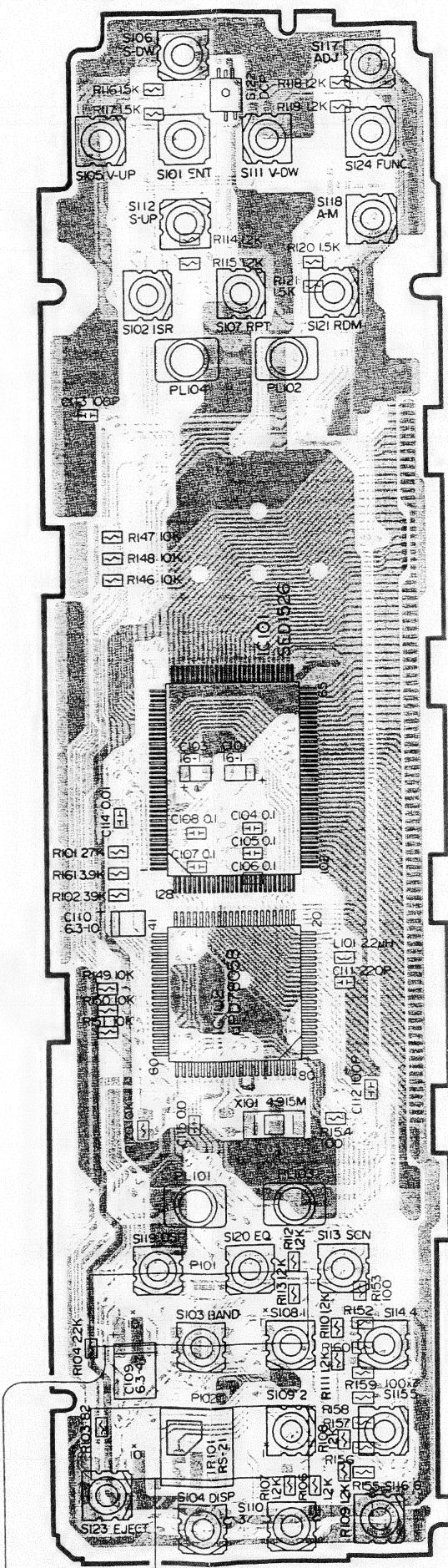


## ■ CIRCUIT DIAGRAM (2/3): MAIN PWB

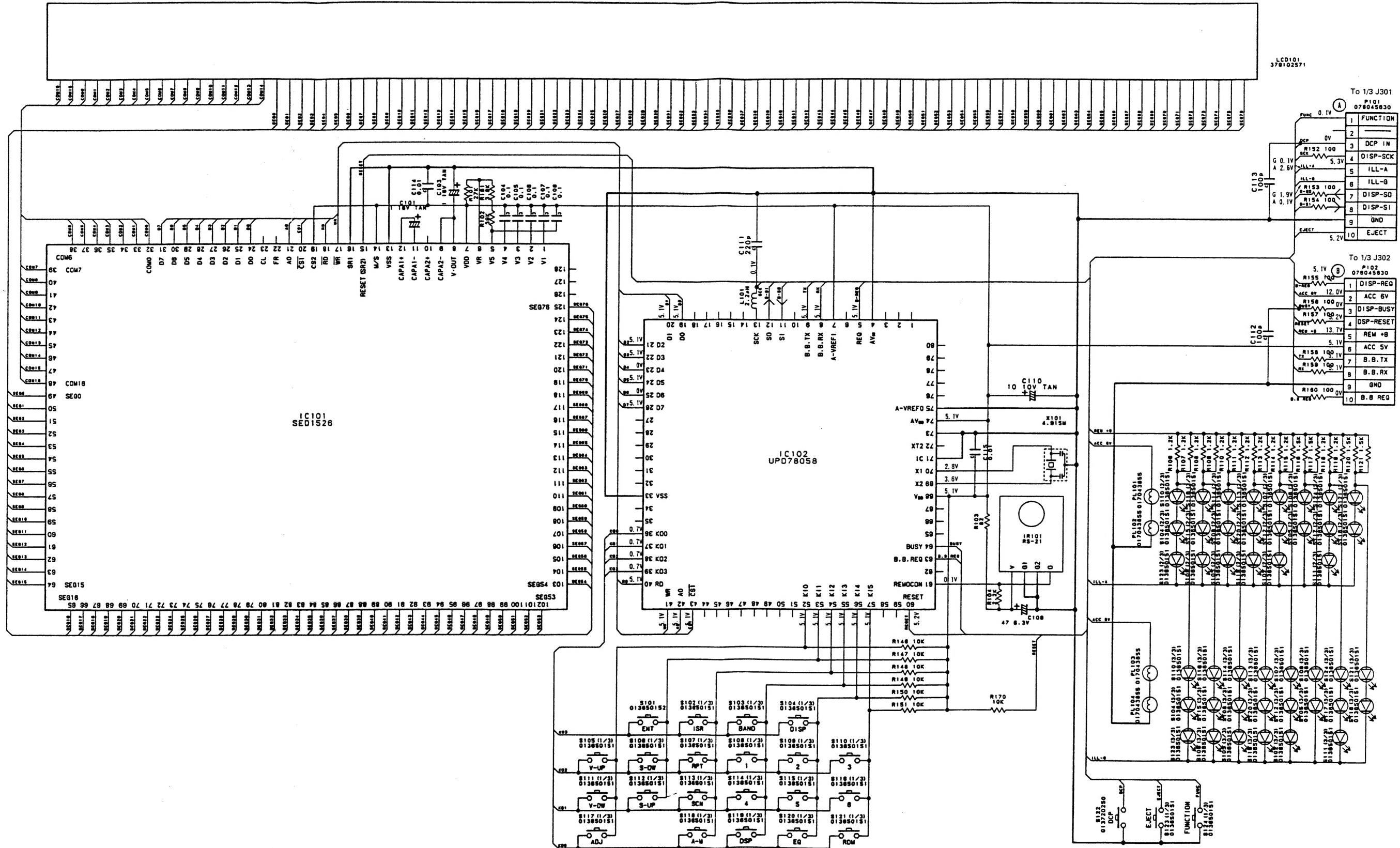




■ PRINTED WIRING BOARD: SWITCH PWB

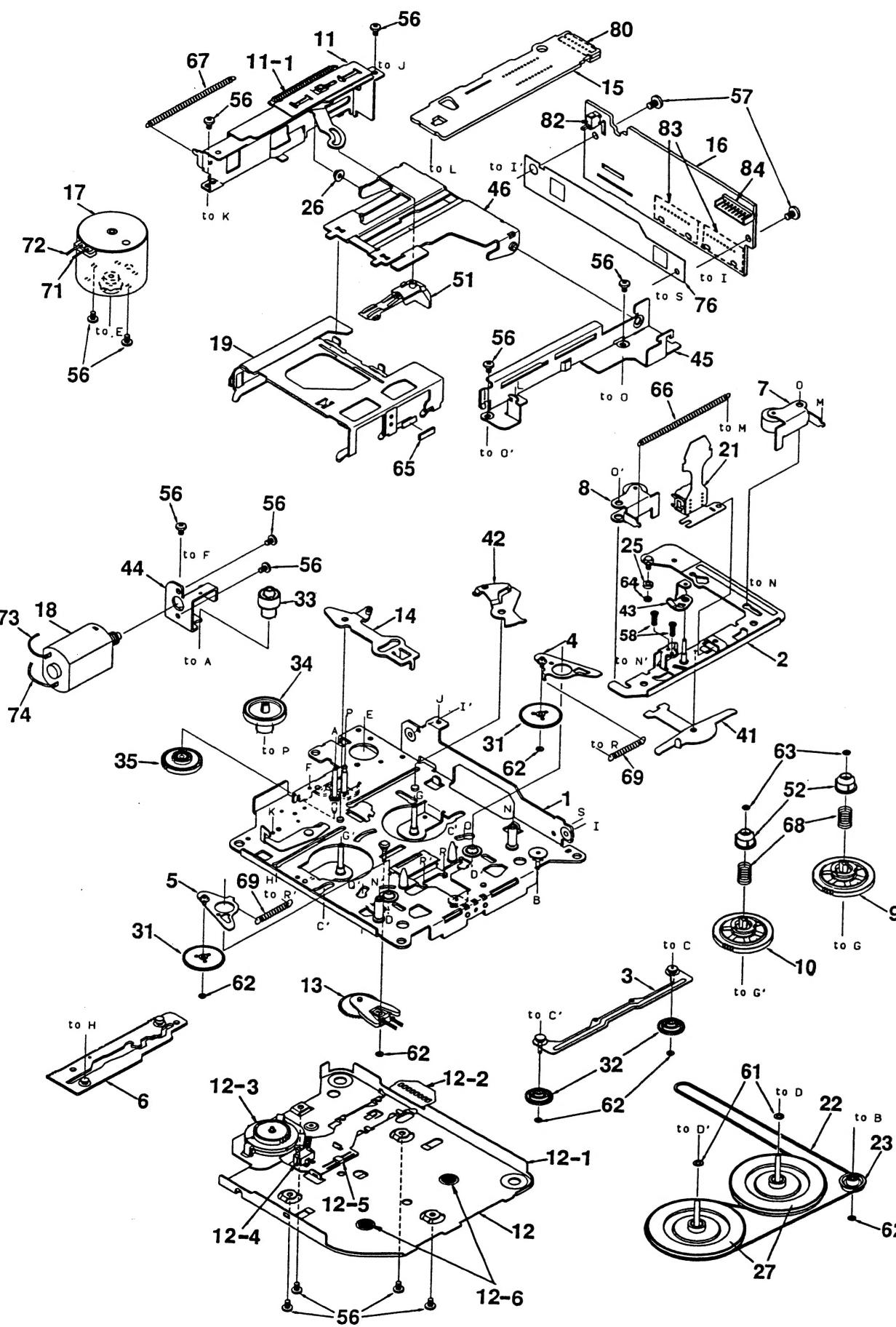


## ■ CIRCUIT DIAGRAM (3/3): SWITCH PWB



## **■ EXPLODED VIEW - PARTS LIST:**

◎Tape mechanism 930-0738-80(GFC-1)



NO	PART NO.	DESCRIPTION	QTY
1	960-4405-90	DECK PLATE-ASSY	1
2	960-4404-90	HEAD PLATE ASSY	1
3	960-4262-03	FF/REW-P-ASSY	1
4	960-4263-01	IDLER-P-ASSY F	1
5	960-4264-01	IDLER-P-ASSY R	1
6	960-4266-05	MODE PLATE-ASSY	1
7	960-4269-05	ROLLER ASSY F	1
8	960-4270-05	ROLLER ASSY R	1
9	960-4348-90	REEL ASSY F	1
10	960-4349-90	REEL ASSY R	1
11	960-4389-90	EJECT SUB-ASSY	1
11-1	750-3020-01	SW-PLATE SPRING	1
12	960-4338-01	BOTTOM SUB-ASSY	1
12-1	960-4295-02	BOTTOM P-ASSY	1
12-2	099-9926-01	FLEX PWB	1
12-3	013-3951-00	SWITCH-MODE	1
12-4	013-3953-00	SWITCH-Cr02	1
12-5	051-1776-01	IC NJL5801K-C	1
12-6	746-0767-00	WASHER	2
13	960-4282-99	DETECT-SUB-ASSY	1
14	960-4301-02	PLAY-L-ASSY GF	1
15	039-0053-00	SIDE PWB	1
16	039-0367-00	REAR-PWB	1
17	SMA-138-100	DC-MOTOR•MAIN	1
18	SMA-131-100	DC-MOTOR•POWER	1
19	960-4406-90	PACK GUIDE ASSY	1
21	011-0307-28	HEAD	1
22	602-0118-00	BELT	1
23	604-0046-00	TENSION PULLEY	1
25	610-0342-01	HEAD-P-ROLLER	1
26	610-0343-00	GUIDE A ROLLER	1
27	611-0091-02	FLYWHEEL	2
31	613-0285-02	IDLER GEAR	2
NO	PART NO.	DESCRIPTION	QTY
32	613-0286-02	FF/REW GEAR	1
33	613-0288-01	HERICAL GEAR	1
34	613-0289-01	GEAR A	1
35	613-0290-00	POWER GEAR	1
41	630-2718-00	CHANGE LINK	1
42	630-2598-04	EJECT LINK	1
43	630-2600-01	ADJUST LINK	1
44	630-2601-02	MOTER PLATE	1
45	630-2626-01	PWB FRAME	1
46	630-2642-01	GUIDE ARM	1
51	631-1992-01	PACK STOPPER	1
52	631-1993-01	SLIDE BUSH	1
56	716-0484-00	SCREW•M2X2.25 B	1
57	716-0761-01	PWB SCREW	1
58	716-0833-10	AZIMUTH SCREW	1
61	746-0624-00	WASHER	1
62	746-0724-00	WASHER	1
63	746-0761-00	WASHER	1
64	746-0762-00	WASHER	1
65	746-0883-00	CLEANING PAD	1
66	750-2946-02	PINCH SPRING	1
67	750-2947-02	EJECT-P-SPRING	1
68	750-2949-00	SLIDE SPRING	1
69	750-3148-00	IDLER P SPRING	1
71	800-4911-60	VINYLCOAT•WIRE•BLK	1
72	802-4911-60	VINYLCOAT•WIRE•RED	1
73	806-4914-60	VINYLCOAT•WIRE•BLU	1
74	809-4914-60	VINYLCOAT•WIRE•WHT	1
76	347-4080-00	INSULATOR	1
80	074-0881-08	OUTLET SOCKET•8P	1
82	013-3906-00	SWITCH	1
83	074-1012-09	OUTLET SOCKET•9P	1
84	076-0353-08	PLUG•8P	1

## **PARTS LIST**

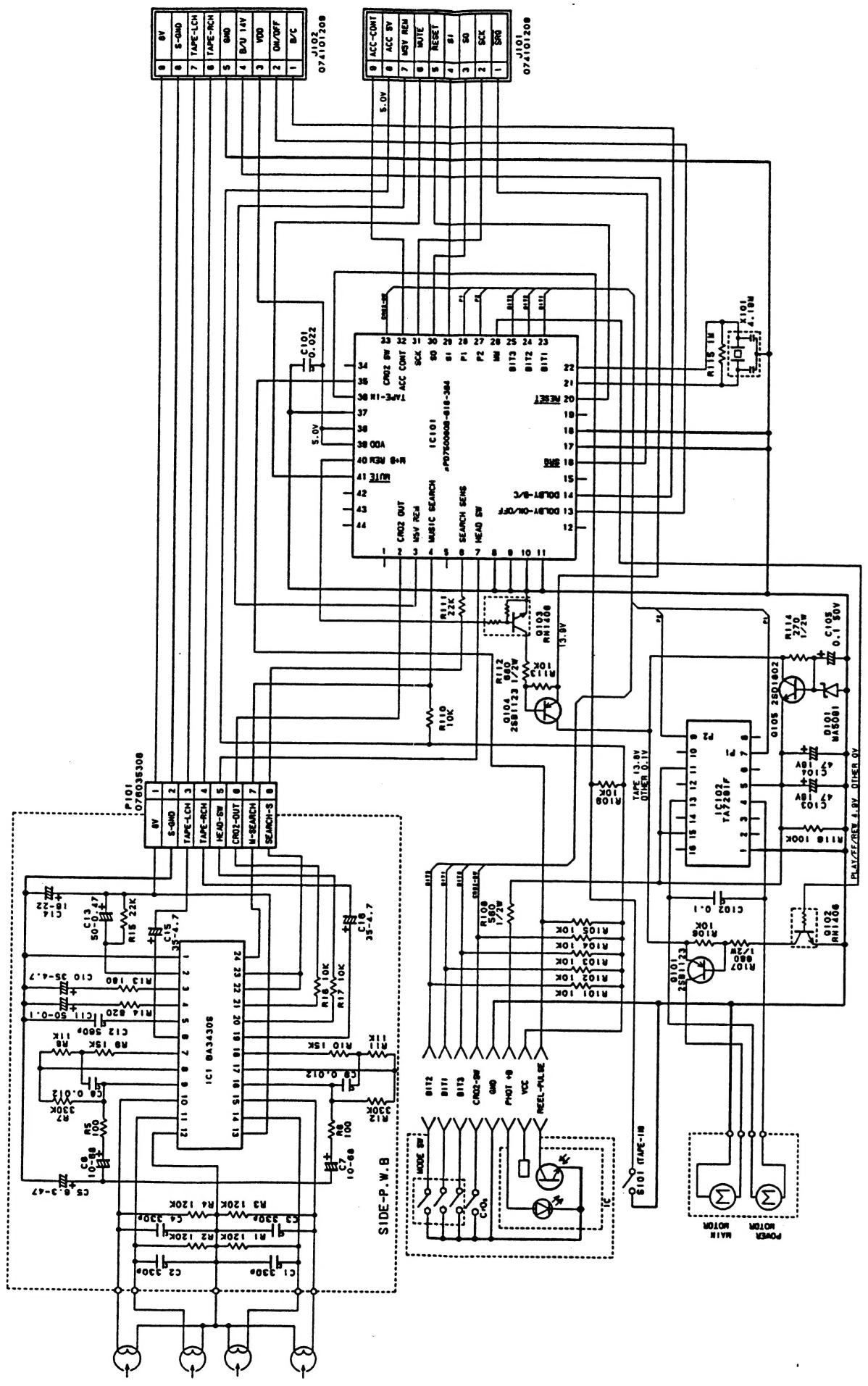
OSIGE PWB				OREAR PWB			
REF NO.	PARTS NO.	DESCRIPTION	QTY	REF NO.	PARTS NO.	DESCRIPTION	QTY
IC1	051-1546-10	IC BA3430S	1	D101	001-0595-17	Diode MA5091	1
C8,9	173-1231-10	Polyester-C 0.012 $\mu$ F	2	IC102	051-1014-05	IC TA7291F	1
C1-4	175-3311-00	Chip-C 330pF	4	IC101	051-1647-02	IC $\mu$ PD50806GB-616-3B4	1
C12	175-5611-00	Chip-C 560pF	1	X101	060-0266-00	Cera-resonator	1
C6,7	042-0476-02	Electro-C 10V6.1 $\mu$ F	2	Q101,104	101-1123-00	Transistor 2SB1123	2
C11	183-1043-61	Electro-C 50V0.1 $\mu$ F	1	Q105	103-1802-60	Transistor 2SD1002FA-R, S, T, U	1
C14	183-2263-31	Electro-C 16V22 $\mu$ F	1	Q102,103	125-2004-06	Transistor RM1406	2
C13	183-4743-61	Electro-C 50V0.17 $\mu$ F	1	C105	163-1063-30	Chip-C 50V0.1 $\mu$ F	1
C10,15,16	183-4753-51	Electro-C 35V1.7 $\mu$ F	3	C103,104	163-4763-30	Chip-C 16V47 $\mu$ F	2
C5	183-4763-11	Electro-C 6.3V11 $\mu$ F	1	C102	043-1601-10	Chip-C 0.1 $\mu$ F	1
				C101	178-2232-78	Chip-C 0.022 $\mu$ F	1

ADJUSTMENT

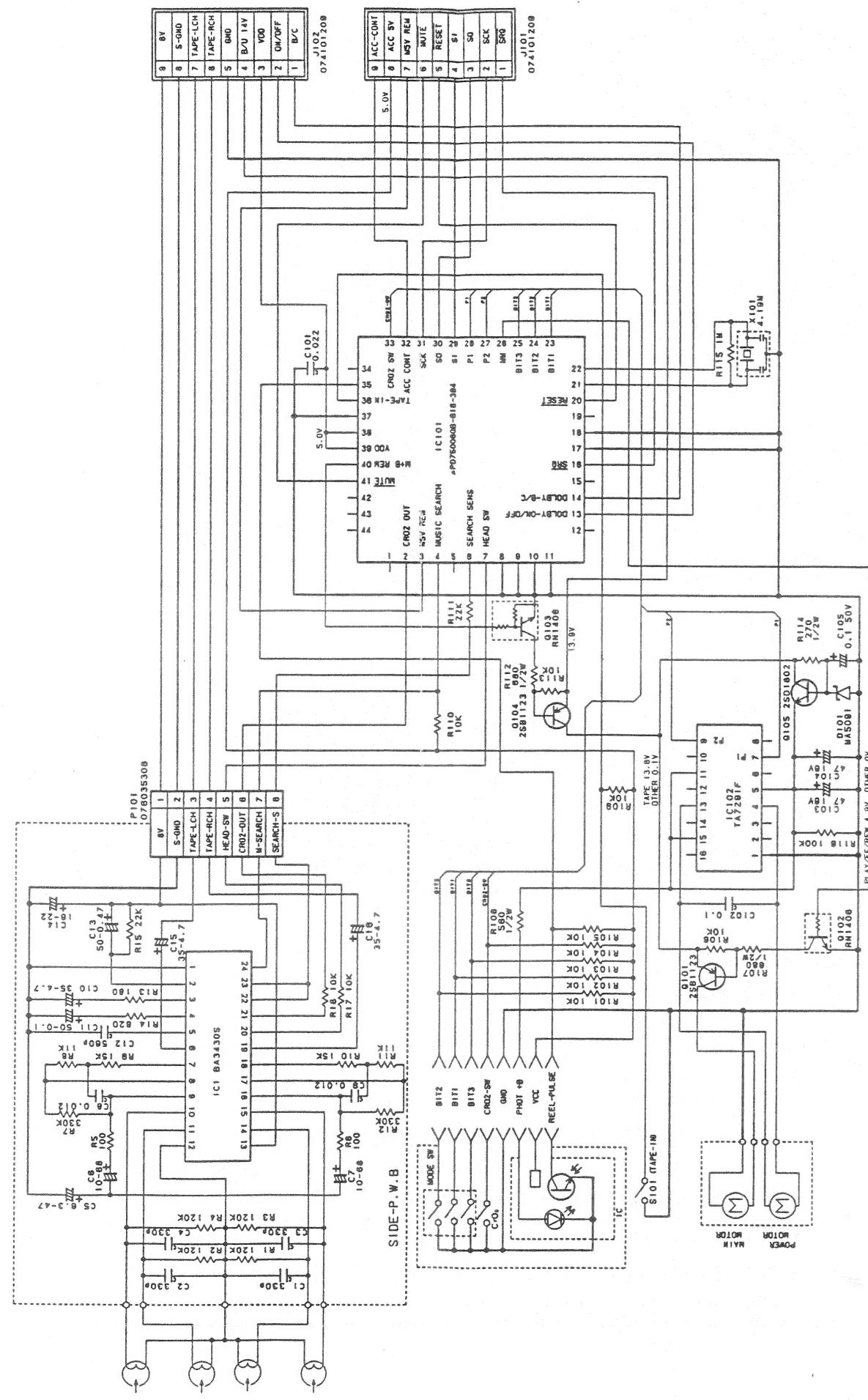
## •TAPE MECHANISM SECTION

Item	Procedure	Instruments
Azimuth Adjustment	Make playback for the azimuth-tape (10kHz, -10VU), and turn each azimuth-adjusting screw to make each FWD & REV maximum. After adjustment, make adhesion with bond.	Milli-volt meter Azimuth-tape
Tape speed	Playback the test tape (3kHz, -10VU) and adjust the frequency counter value to be $3000\text{Hz} \pm 45\text{Hz}$ with tape speed VR.	Frequency counter Wow flutter-tape (3kHz - 10VU)

## CIRCUIT DIAGRAM:



## CIRCUIT DIAGRAM:



## PRINTED WIRING BOARD:

© Tape mechanism (GFC-1)

